

WE CLAIM:

- Sub A1*
1. Apparatus for controlling color of an interference effect pigment during its preparation comprising:
    - an interference effect pigment reactor;
    - a flow cell in communication with the reactor adapted to receive a sample of pigment from the reactor; and
    - a goniospectrophotometer, interfaced with said flow cell, for evaluating light reflected from pigment in said flow cell.
  2. Apparatus of claim 1, wherein said goniospectrophotometer is adapted to evaluate light reflected at up to  $25^{\circ}$  from the specular angle of the pigment.
  3. Apparatus of claim 1, wherein said goniospectrophotometer is adapted to evaluate interference characteristics of light reflected from the pigment dispersion.
- Sub A2*
4. Apparatus of claim 1, wherein said flow cell is adapted to orient the pigment in said flow cell.
  5. Apparatus of claim 1, wherein said flow cell provides a flow

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6. Apparatus of claim 5, wherein the measurement ranges from 0.5 mm to 1 mm.

*Subj3*

7. Method for controlling color of an interference effect pigment during its preparation comprising providing a flow cell with a sample of the pigment being formed, impinging light on the sample, and comparing a characteristic of light reflected from the pigment with a standard.

8. Method of claim 7, wherein the characteristic is a characteristic of an interference effect of light reflected from the pigment.

9. Method of claim 7, wherein said comparing a characteristic of light comprises comparing wavelength, dominant wavelength, color space parameters or a combination thereof.

10. Method of claim 7, wherein said sample comprises mica coated with a high refractive index material.

11. Method of claim 7, further comprising terminating the processing when the characteristic corresponds with the standard.

*Add art*